Appendix K

Conferences, Workshops, and Seminar Series

Appendix K–Conferences, Workshops, and Seminar Series

2004 Conferences and Workshops

Title	Sponsor(s)	Dates
Workshop on Implicit Turbulence Modeling	CNLS, IGPP	January 9-16, 2004
Arizona Days 2004	CNLS	January 30-31, 2004
Center for Simulating Dynamic Response of Materials (ASCI/ASAP University Alliance)	CalTech, T-14	February 2, 2004
Southwestern Quantum Information Technology (SQuInT) Annual Meeting, San Diego, CA	T-4	February 2-22, 2004
Interplay of Magnetism and Structure in Functional Materials, Benasque, Spain	T-11, University of Barcelona	February 9-13, 2004
Lowell Fest	T-8, T-DO	February 27-29, 2004
Intrinsic Inhomogeneity in Multiferroic Materials, American Physical Society March Meeting Focused Session, Montreal, Quebec, Canada	T-11	March 22-26, 2004
The 14th APS Conference on Atomic Processes in Plasmas, Santa Fe, NM	T-4	April 19-22, 2004
IMA "Hot Topics" Workshop: Compatible Spatial Discretizations for Partial Differential Equations	T-7, University of Minnesota, SNL, Carnegie Mellon University	May 11-15, 2004
CNLS 24th Annual Conference on Statistical Physics of Macromolecules: From Electronic Structure to Fluid Dynamics	CNLS	May 17-21, 2004
Second SPIE International Symposium on Fluctuations and Noise, Gran Canaria, Spain	T-13	May 26-28, 2004
Los Alamos Summer School	T-4	June 7-August 13, 2004
SF04 Cosmology Summer Workshop	T-8, T-DO, IGPP, Fermilab, University of Chicago	July 5-23, 2004
Supernova Theory and Nucleosynthesis	University of Washington, T-6, IGPP, LLNL	July 15-17, 2004
Quantum and Semiclassical Molecular Dynamics of Nanostructures	CNLS, T-12, T-DO	July 15-17, 2004
Physical Metallurgy Gordon Conference	T-12	July 25-30, 2004
Statistical Physics of Complex Systems	CNLS, T-13	July 26-August 6, 2004
Beyond the Higgs	T-8, T-DO	August 8-14, 2004
Quantum Enabled Science and Technology (QUEST) 2004	T-8	August 9-13, 2004

Title	Sponsor(s)	Dates
Chemical Enrichment of the Early Universe, Santa Fe, NM	IGPP, T-6, SciDAC SSC, Joint Institute for Nuclear Astrophysics	August 9-13, 2004
Cascade Dynamics: Fundamentals and Modeling	CNLS	August 16-20, 2004
12th International Conference on Recent Progress in Many-Body Theories, Santa Fe, NM	T-16, T-11, T-4	August 23-27, 2004
International Conference on Nuclear Data for Science and Technology	T-16, LANSCE, OECD Nuclear Energy Agency	September 26-October 1, 2004
Turbulence Working Group Workshop	CNLS	December 5-6, 2004

2004 P/T (Physics/Theoretical Divisions) Colloquium Series

Speaker and Affiliation	Title	Host	Date
Umar Mohideen UC Riverside	Exploring the Quantum Vacuum Through the Casimir Effect	T	01/08/04
Gary Olsen University of Illinois at Urbana-Champaign	A Tree in the Jungle of Gene Histories: Or, Don't Trip on the Vines	T	01/15/04
Dana Berkeland Los Alamos National Laboratory	Searching for Non-Randomness of Quantum Mechanics with Trapped Ions	P	01/22/04
Emily Carter UC Los Angeles	Linking Quantum and Continuum Mechanics to Study Mechanical Response of Materials	T	01/29/04
Ming Liu Los Alamos National Laboratory	RHIC/PHENIX	P	02/05/04
Neil Ashcroft Cornell University	Higher Superconductivity in the Compressed Lower Elements	T	02/12/04
Steven K. Dower University of Sheffield	Signaling Network in Inflammation and Innate Immunity	T	02/19/04
Louis Rosocha Los Alamos National Laboratory	Plasma-Assisted Combustion	P	02/26/04
Ann Nelson University of Washington	Experimental Tests of Dark Energy from Mass Varying Neutrinos via Neutrino Oscillation Experiments	P	03/04/04
Jose N. Onuchic UC San Diego	Exploring the Protein Funnel Energy Landscape for Folding and Function	T	03/11/04
Margaret Murnane JILA (NIST/CU)	Multiphoton EUV Photonics	P	03/25/04
Rolfe Petschek Case Western Reserve	Ferroelectric Liquid Crystal: Realities and Possibilities	P	04/01/04
Hoi-Kwong Lo University of Toronto	From Quantum Cheating to Quantum Security	P	04/08/04
David Montgomery Los Alamos National Laboratory	Towards Developing a Fundamental Understanding of Laser-Plasma Interaction Physics	P	04/15/04
John Guckenheimer Cornell University	Canards, Chaos, and Relaxation Oscillations	T	04/22/04
Mark Ratner Northwestern University	Molecular Nanostructures: Fabrication and Transport Aspects	T	04/29/04
David Srolovitz Princeton University	Computational Modeling of the Dynamics of Dislocations	T	05/06/04
Julio M. Ottino Northwestern University	Dynamics of Segregation, Mixing, and Coarsening of Granular Matter	T	05/13/04
John D. Weeks University of Maryland	Screening, Structure, and Simulations of Ionic Fluids: The Long and Short of It	T	05/27/04

Speaker and Affiliation	Title	Host	Date
Boris Ya. Zeldovich University of Central Florida	Bi-frequency Pendulum on a Rotary Platform: Modeling Various Optical Phenomena	T	06/03/04
Don Rej Los Alamos National Laboratory	High-Power RF Linac for the Spallation Neutron Source	P	09/02/04
Randy Bartels Colorado State University	Harnessing Controlled Molecular Dynamics	P	09/09/04
Philipp Kronberg Los Alamos National Laboratory	The Transfer of Black Hole Energy Into Intergalactic Space	P	09/16/04
Bruce Remington Lawrence Livermore National Laboratory	A Path to Extreme Materials Science: Progress, Plans, and Challenges	P	09/23/04
Joao Magueijo Imperial College	Could the Speed of Light Change?	P	09/30/04
Ernest R. Davidson University of Washington	Theoretical Modeling of Single Molecule Magnets	T	10/07/04
Michael Romalis Princeton University	Atomic Magnetometers for Fundamental Physics and Applications	P	10/14/04
Marc Mezard Orsay, France	Phase Transitions in Optimization Problems	T	10/21/04
Robert Ehrlich George Mason University	Seven Reasons Why Neutrinos May be Faster-than-Light Tachyons	P	10/28/04
Ivan Vitev Los Alamos National Laboratory	The Little Bang?	P	11/04/04
Cristian D. Batista Los Alamos National Laboratory	Electronic Ferroelectricity	P	11/18/04
Wick Haxton University of Washington	Deep Underground Science	T	12/02/04
George Eleftheriades University of Toronto	Negative-Refractive Index Transmission-Line Metamaterials and Electromagnetic Applications	P	12/16/04

2004 Quantum Lunch Series

Speaker and Affiliation	Title	Date
Alexander Cronin University of Arizona	Atom Optics and van der Vaals Interactions	01/22/04
Patrick Hayden California Institute of Technology	Quantum Communications: A Real Enigma	01/28/04
W. H. Zurek Los Alamos National Laboratory	Probabilities (and More) from Envariance	01/29/04
Eric Burt Jet Propulsion Laboratory	The Physics Package Design for the PARCS Project	02/04/04
Joe Renes University of New Mexico	Spherical Codes and Designs in Quantum Cryptography	02/05/04
Bogdan Damski University of Hannover	Shock Waves in Ultracold Atomic Gases	02/19/04
George Chapline Lawrence Livermore National Laboratory	Quantum Computing Near to an Event Horizon	02/26/04
William K. Wootters Williams College	Picturing Qubits in Phase Space	03/25/04
Aaron E. Leanhardt Massachusetts Institute of Technology	Guiding, Splitting, and Interfering Bose-Einstein	04/01/04
Hoi-Kwong Lo University of Toronto	Communication Complexity and Security of Quantum Key Distribution	04/08/04
Tien Dung Kieu Swinburne University of Technology	An Anatomy of a Quantum Adiabatic Algorithm that Transcends Turning Computability	04/22/04
Matthew Bigelow University of Rochester	Ultraslow and Superluminal Light Propagation in Room-Temperature Solids	04/29/04
Markus Aspelmeyer Universitaet Wien	Exploring Quantum Physics with Entangled Photons	05/03/04
Paulo Maia Neto Universidade Federal do Rio de Janeiro	Dynamical Casimir Effect and Its Applications	05/06/04
Tanmoy Bhattacharya Los Alamos National Laboratory	Active Feedback Cooling in Cavity QED and Nanomechanics	05/27/04
Daniel James Los Alamos National Laboratory	Quantum State Teleportation	06/03/04
Paul Kwiat University of Illinois, Urbana	New Directions in Optical Quantum Technologies	06/17/04
Yuriy Pershyn Clarkson University	Evolution of Electron Spin Polarization in Semiconductor Heterostructures	07/01/04
Keith Schwab National Security Agency	Mechanics at the Quantum Limit	07/08/04
Ivan Deutsch University of New Mexico	Quantum Control and Measurement of Ultra-cold Atoms	07/15/04

Speaker and Affiliation	Title	Date
John Mamin IBM Almaden Research Center	Single Spin Detection by Magnetic Resonance Force Microscopy	09/02/04
Steve Fenner University of South Carolina	Physical Interactions for Fast Quantum Computation	09/09/04
Paul S. Jessen University of Arizona	Continuous Quantum Measurement and Control of Atomic Spin Ensemble	09/16/04
Victor I. Klimov Los Alamos National Laboratory	Functional Nanocrystal-Quantum-Dot Assemblies: Putting Dots To Work	09/23/04
Gavin Brennen National Institute of Standards and Technology	Time Reversal Symmetry and the Kinematics and Dynamics of Many Qubit Entanglement	09/30/04
James (Trey) V. Porto National Institute of Standards and Technology	Cold Atoms in Optical Lattices: Pushing BEC Beyond Mean Field –To-Follow	10/14/04
Michael I Sigal University of Notre Dame University of Toronto	Renormalization Group Approach to Spectral Problems with Application to Theory of Radiation	10/21/04
Fabricio Toscano University Federal do Rio de Janeiro	Decoherence and the Quantum-classical Limit in the Presence of Chaos	10/28/04
Daniel Heinzen The University of Texas	Studies of Superfluid and Insulating States of a Bose Gas in a Lattice	11/04/04
Adrian E. Feiguin University of California at Irvine	Applications of the Density-Matrix Renormalization Group to Correlated Electron Physics	11/18/04
Andrew Wilson University of Otago Dunedin	A Collider for Ultracold Atoms – Imaging Partial-wave Interference in Quantum Scattering	11/22/04
Wojciech H. Zurek Los Alamos National Laboratory	Dynamics of a Quantum Phase Transition	12/02/04
Zbyszek Karkuszewski Los Alamos National Laboratory	Depletion of Evolving Bose-Einstein Condensates	12/16/04
John Chiaverini NIST-Boulder, University of Colorado	Quantum Information Processing with Trapped Ions at NIST	12/17/04